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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 10/773,910 | 02/05/2004 | Seng San Koh | 70019413-1 | 8340 |

22879 7590 05/25/2005

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| EXAMINER |
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KUMAR, RAKESH

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| ART UNIT | PAPER NUMBER |
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3654

DATE MAILED: 05/25/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|--------------------------------------|-----------------------------------|--|
| Office Action Summary | Application No. 10/773,910 | Applicant(s) KOH ET AL. | |
| | Examiner Rakesh Kumar | Art Unit 3654 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 02/05/2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date <u>2/5/04</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claim 4 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

3. Referring to claim 4. The location of the probe and the detector are unclear as to what drawing figure is being described. In Figure 1,2 and 3 the probe and the detector are located both together and at opposite sides of the media stack. As a suggestion the claim will be more comprehensible if the word "each" was omitted and not described as relative to the "dispensing device".

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this

Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claim 1-4 and 7 are rejected under 35 U.S.C. 102(b) as being anticipated by Rubscha (Patent No. 5,743,522).

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6. Referring to claim 1. Rubscha discloses a "sheet sensor system" (Col. 2 line 18), where an actuator (32) is located at a unloaded preset position (see Figure 6, Col. 2 line 23), when loaded the actuator (32) is actuated or moved to a second position below the tray surface (14) by the overlaying sheets (see Figure 9, Col. 2 line 24). An optical switch unit (39) associated with the actuator (32) detects the change in the position (Col. 5 line 21). Rubscha teaches in Figure 4 the relative location of the media stack as being between the probe and the document dispensing direction (Col.6 line 53-56). It should be understood that an actuator (32) and an optical switch (39) unit has been interpreted as a probe and a detector respectively.

7. Referring to claim 2. Rubscha discloses the actuator (32) is mounted onto the actuator arm (35) which is pivotally (36) mounted "internally" under the tray (12) (Column 5 line 11-14), it is interpreted to mean the sensor actuators are an internal part of the large media handling tray with the sensors integrated inside, thus the actuator (32), actuator arm (35) are attached to the media tray itself. The teaching shows the actuator arm (35) is inclined in its initial position when the loading status of the media tray (12) is empty (see Figure 6), the actuator surface (40) is in direct contact with media stack in the second condition when the tray (12) is in the loaded status (see Figure 9).

8. Referring to claim 3. Rubscha describes (Column 5 line 14-20), the integral extension of the arm of the actuator (32) (probe) as being "integrally weighted" (35a) referring to an anchor weight used to gravitationally pivot the arm.

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9. Referring to claim 4. Rubscha teaches the location of placing the actuator (32) and the optical switch (39) to be both located on the opposite side of the media stack (see Figure 4). As far as claim 4 can be understood, the probe and the detector are each (meaning both) are located on the opposite side of the media stack as relative to the dispensing device as shown in Figure 3 in the drawings, contrary to what is shown on Figures 1 and 2 in drawings.

10. Referring to claim 7. Rubscha describes Figure 5 as a state of transition for the actuator (32). Rubscha teaches the initial position of the probe that is "about to actuate" as being at an unloaded position for the probe (Column 3 line 39). After the actuation has occurred the actuator (32) arrives at a second position that is due to the stack of sheets loaded onto the tray (12), thus a loaded position (Column 8 lines 5-7). These two positions allow the sheet sensor system to detect the status of the media tray. Rubscha teaches of an actuator (32) making contacting with loaded media, and the motion of the probe actuating the detector. Rubscha discloses the actuator (32) is mounted onto the actuator arm (35) which is pivotally (36) mounted "internally" under the tray (12), it is interpreted to mean the sensor actuators are inherently an internal part of the large media handling tray with the sensors integrated inside (Column 5 line 11-14), thus the actuator (32), actuator arm (35) are attached to the media tray itself. Rubscha teaches (see Figure 9) under loaded media status the media is positioned normally in between the probe and the dispensing area.

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

12. Referring to claim 5. Rubscha teaches the motion of the probe (32) can be detected by a detector (39) when the detector (39) is placed on the opposite side of where the dispensing device is positioned. Rubscha does not teach the placement of the detector (39) to be located on the same side as the dispensing device. Looney (Patent No. 5,033,731) teaches (Figure 2) the placement of the detector (30) to be located on the same side as the dispensing device (16 and 40). It would be obvious for one skilled in the art to combine the teaching from Rubscha with the teaching from Looney to position the location of the detector and the dispensing device to be on the same side of the media stack without losing the described functionality of the Rubscha device.

13. Referring to claim 6. Rubscha teaches of a probe (32) and detector (39) combination to be internally mounted pivotally (36) to a media stack tray (12) as described referring to claim 2. Rubscha teachings also disclose of the media stack height to be changing as the media is being used in the media tray (12), as the media tray (12) remains at a constant position. Rubscha does not teach of a

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moveable tray platform (12) that can maintain a constant positional relationship with the top of the media stack and the dispensing device above. Rabjohns (Patent No. 5,248,137) teaches of a movable stack platform (78) maintaining a constant positional relationship with the feeder (81) and the uppermost sheet of the media stack by moving the platform as the media is consumed. It would be obvious for one skilled in the art to combine the teaching of Rubscha and Rabjohns to make the media stack tray movable and maintain a constant positional relationship between the top of the media stack and the dispensing device in areas where the movement of the dispensing device is not desired and can not be accommodated.

Conclusion

14. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

U.S. Pat. No. 6,651,977 to Tanaka discloses a paper-feeding device having actuator (18).

U.S. Pat. No. 4,888,617 to Okuzawa discloses a sheet-feeding device with a moving tray platform (62)

15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rakesh Kumar whose telephone number is (517) 272-8314. The examiner can normally be reached on 8:00AM - 4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kathy-Matecki can be reached on (571) 272-6951. The

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fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

16. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

RK

A handwritten signature in black ink that reads "Kathy Matecki". The signature is written in a cursive, flowing style.

KATHY MATECKI
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3600